

## PATENT

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1. (Twice amended) A method of [supplying carbohydrate nutritional supplementation to mammals] enhancing the energy supply of an athlete during exercise and exercise recovery, said method comprising the steps of:

D2 [providing] preparing an aqueous fluid replacement solution comprising [at least one lactic acid salt as a carbohydrate nutritional component of said solution] from about 1 to about 10% w/v of a combination consisting of about 10-20% an inorganic salt of lactic acid and about 90-80% L-arginyl-L(+)-lactate; and

administering said solution [in oral dosage form to a mammalian host in an amount sufficient to beneficially affect the mammal's fluid, electrolyte or carbohydrate balance during exercise and/or subsequent recovery] to said athlete.

[ 2. ✓ Cancel.

D3 2/3. The method [as recited in claim 2] of claim 1, wherein the inorganic lactic acid salt is [at least one member] selected from the group consisting of ammonium lactate, calcium lactate, potassium lactate, sodium lactate and magnesium lactate.

4. ✓ Cancel.

5. ✓ Cancel.

6. ✓ Cancel.

7. ✓ Cancel.

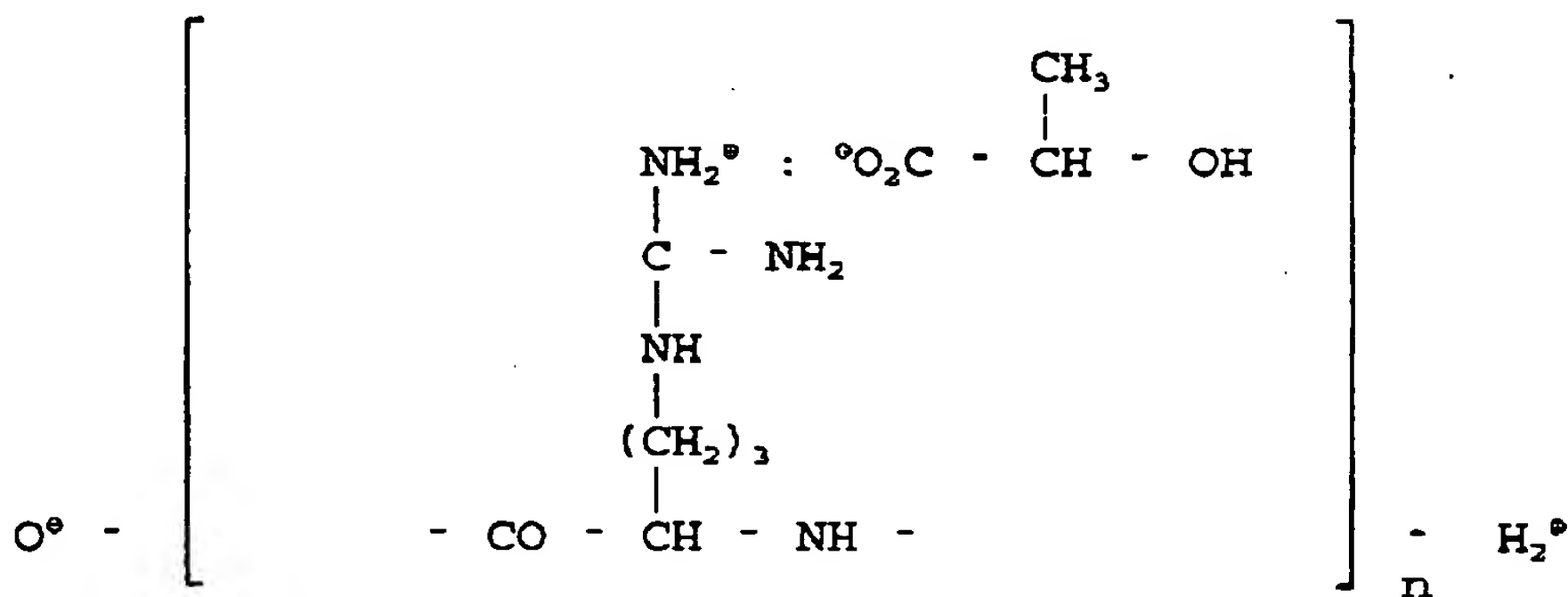
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<sup>3</sup>8. The method [as recited in claim 4] of claim 1, wherein the L-arginyl-L(+)-lactate [organic lactic acid salt] is a polymer.

<sup>4</sup>9. The method [as recited in] of claim <sup>3</sup>8, wherein the [organic lactic acid salt comprises poly(L-Arginyl-L(+)-lactate) having] L-arginyl-L(+)-lactate polymer has the following general structure:



where  $n > 1$ .

10. Cancel.

<sup>5</sup>11. The method [as recited in] of claim 1, wherein the aqueous solution additionally [consists of] comprises simple or complex carbohydrates [in amounts sufficient to improve the energy supply of the mammal].

<sup>6</sup>12. The method [as recited in] of claim <sup>5</sup>11, wherein the simple carbohydrate is glucose or fructose.

<sup>7</sup>13. The method [as recited in] of claim <sup>5</sup>11, wherein the complex carbohydrate is [at least one member] selected from the group consisting of glucose polymers from five to ten monomeric units.

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*D5 cont.*

~~14.~~ (Twice Amended) A fluid replacement solution  
[A carbohydrate nutritional supplement for restoring a  
mammal's fluid, electrolyte and carbohydrate balance  
during exercise and subsequent recovery] comprising:  
an aqueous solution [comprising at least one  
lactic acid salt as a nutritional component of said  
solution in an amount sufficient to beneficially affect  
the mammal's fluid, electrolyte or carbohydrate balance  
during exercise and/or subsequent recovery, wherein  
said solution comprises] including a combination  
consisting of:

a) from about 10-20% of an [at least one]  
inorganic lactic acid salt [wherein the inorganic  
lactic acid salts are in a final solution concentration  
of up to approximately 0.2 weight percent]; and

b) from about 90-80% of a lactate formed from  
L(+)-lactate anion and at least one member selected  
from the group consisting of cations of L isomeric  
forms of basic amino acids [at least one organic lactic  
acid salt];

wherein the total amount of said inorganic lactic  
acid salt and said lactate is [organic lactic acid  
salts are] from about 1 to about 10% w/v of said  
aqueous solution [in a final solution concentration of  
from approximately 0.36 to 9.8 weight percent].

*D6*

~~17.~~ (Amended) The solution of [supplement as  
recited in claim 15] claim 14 wherein the inorganic  
lactic acid salt is [at least one member] selected from  
the group consisting of ammonium lactate, calcium  
lactate, potassium lactate, sodium lactate and  
magnesium lactate.

*C*

~~18.~~ Cancel.

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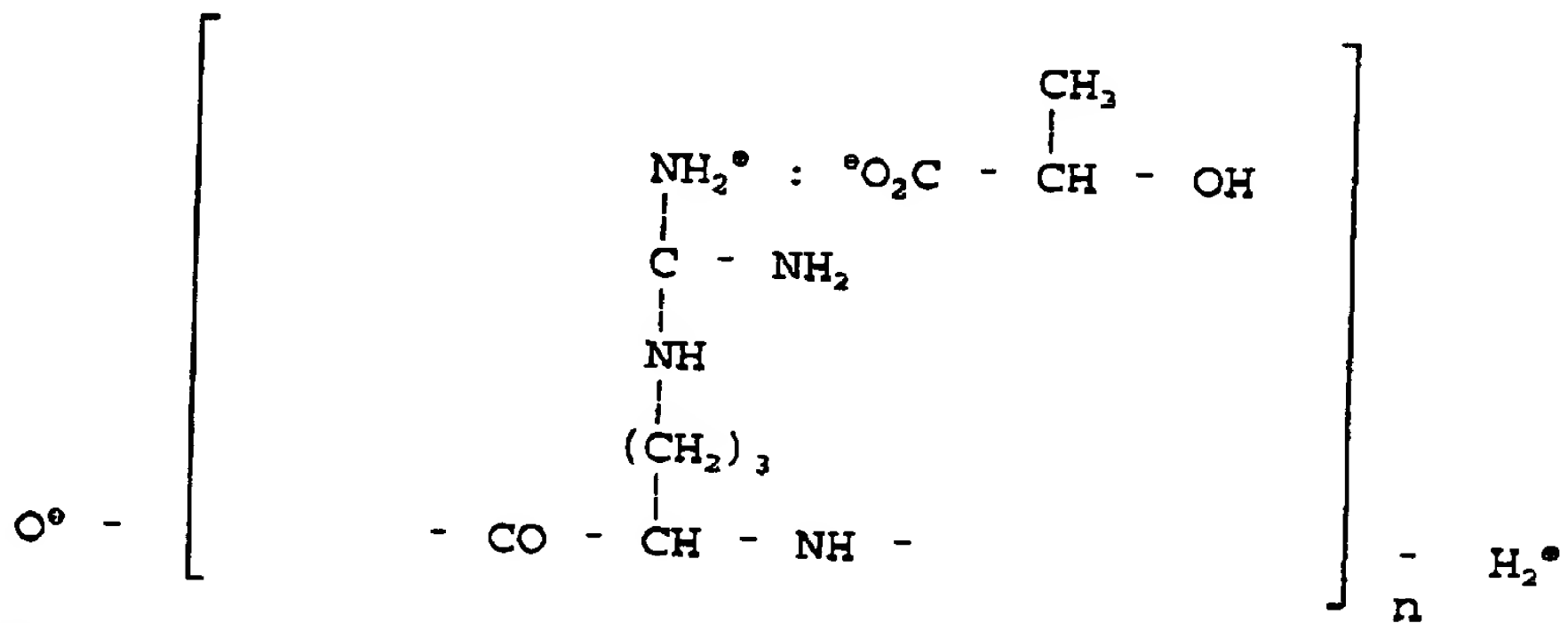
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1019. (Amended) The [supplement as recited in claim 18] solution of claim 14, wherein the basic amino acid is [at least one member] selected from the group consisting of L-Arginine, L-Histidine and L-Lysine.

11/20. (Amended) The [supplement as recited in claim] solution of claim 10, wherein the lactate is [organic lactic acid salt comprises] L-Arginyl-L(+)-lactate.

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8 ~~21.~~ (Amended) The [supplement as recited in claim ~~14~~, wherein the organic lactic acid salt] solution of claim ~~14~~ wherein said lactate is a polymer.

13  
22. (Amended) The [supplement as recited in claim 21, wherein the organic lactic acid salt] solution of claim 21 wherein said polymer comprises poly(L-Arginyl-L(+)-lactate) having the following general structure:



where  $n > 1$ .

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<sup>14</sup>  
 23. (Amended) The [supplement as recited in claim 14, wherein the] said aqueous solution further comprises simple or complex carbohydrates [in amounts sufficient to improve the energy supply of the mammal].

<sup>15</sup>  
 24. (Amended) The [supplement as recited in claim] solution of claim 23, wherein the simple carbohydrate is glucose or fructose.

<sup>16</sup>  
 25. (Amended) The [supplement as recited in] solution of claim 23, wherein the complex carbohydrate is at least one member selected from the group consisting of glucose polymers of from five to ten monomeric units.

<sup>17</sup>  
 26. (Amended) The [supplement as recited in] solution of claim 23, wherein the simple or complex carbohydrate components are in accordance with the following dosages:

[c)] Mono- and Disaccharide simple carbohydrates in a final concentration of from approximately 0.4 to 2.0 weight percent; and

[d)] Polysaccharide complex carbohydrates in a final concentration of from approximately 0.8 to 4.0 weight percent.

REMARKS

Entry and of this amendment and consideration of applicants claims as amended are respectfully requested. Claims 1, 3, 8, 9, 11-14, 17 and 19-26 and 28 are now pending.

Support for the amended claims is found as follows:

New claim 28 is directed to the composition described in example 2.

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